CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR PROPOSAL

	REQUISITION NUMBER	DUE DATE	TIME DUE
	2764	05/13/19	noon est
MDOT PROJECT MANAGER Jason Pittman	JOB NUMBER (JN) 131769PE	CONTROL SECTION (CS) 46011, 46061	

DESCRIPTION

Design services for US-127 and US-223 from US-12 to Stoddard Road in Lenawee County

MDOT PROJECT MANAGER: Check all items to be included in. WHITE = REQUIRED ** = OPTIONAL Check the appropriate Tier in the box below			**CONSULTANT:** Provide only checked items below in proposal when applicable, Best Value scoring criteria is listed separately in the RFP. **Optional items are determined by the MDOT Project Manager.
☐ **TIER 1 ($100,000 - $250,000)**	☐ **TIER II ($250,000-$1,500,000)**	☒ **TIER III (>$1,500,000)**	
☐	☐	☒	Understanding of Service **
N/A	☐	☒	Innovations
☐	☐	☒	Organizational Chart
☐	☐	☒	Qualifications of Team
N/A	N/A	☒	Quality Assurance/Quality Control **
☐	☐	☒	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation **
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT Forms not counted) Resumes will only be accepted for Best Value Selections.	7 pages (MDOT Forms not counted)	14 pages (MDOT Forms not counted)	Total maximum pages for RFP **not including key personnel resumes.** Resumes limited to 2 pages per key staff personnel.

PROPOSAL AND BID SHEET E-MAIL ADDRESS – mdot-rfp-response@michigan.gov

The Consultants will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. Consultants are responsible for ensuring that MDOT receives the proposal on time.

* Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response.

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least five (5) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100J – Consultant Data and Signature Sheet (Required for all firms performing non-prequalified services on this project.)

(These forms are not included in the proposal maximum page count.)

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be developed and submitted in accordance with the latest Consultant/ Vendor Selection Guidelines for Services Contracts."

RFP SPECIFIC INFORMATION

☒ ENGINEERING SERVICES ☐ BUREAU OF TRANSPORTATION PLANNING ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☒ NO ☐ YES DATED _____ THROUGH _____

☒ **Prequalified Services** – See the attached Scope of Services for required Prequalification Classifications.	☐ **Non-Prequalified Services** – If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed. **Form 5100J is required with proposal for all firms performing non-prequalified services on this project.**

☒ **Qualification Based Selection** - Use Consultant/Vendor Selection Guidelines.

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualification Based Selection / Low Bid** – Use Consultant/Vendor Selection Guidelines. See Bid Sheet instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted. The vendor that has met established qualification threshold and with the lowest bid will be selected.

☐ **Best Value** – Use Consultant/Vendor Selection Guidelines, See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required – no proposal required.)

BID SHEET INSTRUCTIONS

Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) with the proposal, to the e-mail address: MDOT-RFP-Response@michigan.gov. Failure to comply with this procedure may result in your bid being rejected from from consideration. MDOT reserves the right to reject any and all bids.

PARTNERSHIP CHARTER AGREEMENT

MDOT and ACEC created a Partnership Charter Agreement which establishes guidelines to assist MDOT and Consultants in successful partnering. Both the Consultant and MDOT Project Manager are reminded to review the ACEC-MDOTPartnership ,Charter Agreement and are asked to follow all communications, issues resolution and other procedures and guidance's contained therein.

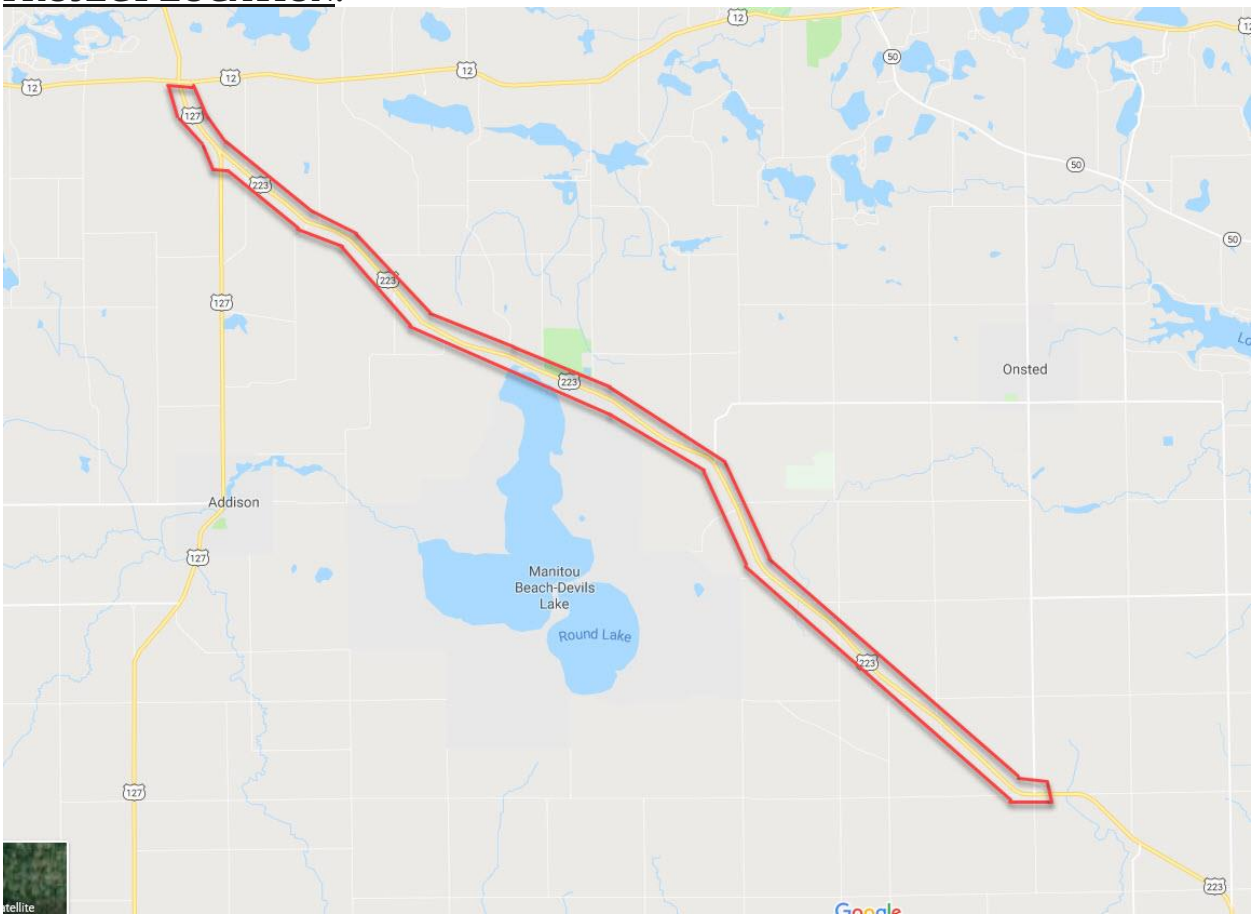
Michigan Department of Transportation

SCOPE OF SERVICE
FOR
DESIGN SERVICES

CONTROL SECTION(S): 46011, 46061

JOB NUMBER(S): 131769PE

PROJECT LOCATION:



The project will extend along US-127 from the US-12/US-127 intersection south to the US-127/US-223, then along US-223 from the US-127/US-223 intersection southeasterly to the Stoddard Road intersection in Woodstock, Rollin, and Rome Townships, in Lenawee County. CS 46011, CSMP 5.040 to 5.901, PR 946208, PRMP 5.040 to 5.901, and CS 46061, CSMP 0.000 to 11.189, PR 946402, PRMP 0.000 to 11.182.

The project is approximately 12.05 miles in length.

PROJECT DESCRIPTION:
Work involved in the design of the project consists of the rehabilitation of the existing 2 to 4 lane roadway including HMA cold milling and 2 course resurfacing, pavement repairs, intersection upgrades, minor drainage improvements, culvert replacement, signal modernization, widening and paving shoulder, pavement marking, and signing upgrade.

A future year safety project has been programmed for the construction of a roundabout at the US-127/US-223 intersection. **The design of the proposed roundabout will be included with this design contract.**

The scope of work will be verified at a Scope Verification Meeting with MDOT personnel and the selected Consultant following selection. This meeting will be scheduled in **August 2019** prior to Consultant submittal of the priced proposal to the MDOT Project Manager.

ANTICIPATED SERVICE START DATE: October 16, 2019

ANTICIPATED SERVICE COMPLETION DATE: January 31, 2022

DBE PARTICIPATION REQUIREMENT: 8.0%

PRIMARY PREQUALIFICATION CLASSIFICATION(S):
Design – Roadway: Intermediate

SECONDARY PREQUALIFICATION CLASSIFICATION(S):
Design – Geotechnical
Design – Hydraulics I
Design – Traffic: Pavement Markings
Design – Traffic: Capacity & Geometric Analysis
Design – Traffic: Signal
Design – Traffic: Signing – Non-Freeway
Design – Traffic: Work Zone Maintenance of Traffic
Design – Traffic: Work Zone Mobility & Safety
Surveying: Road Design
Surveying: Right of Way

PREFERRED QUALIFICATIONS AND CRITERIA (FOR NON-CLASSIFIED SERVICES):

1) UTILITY COORDINATION
   MDOT shall be responsible for project Utility Coordination

MDOT PROJECT ENGINEER MANAGER:

Name: Jason Pittman, P.E. – Cost & Scheduling Engineer
Address: MDOT Jackson Transportation Service Center
2750 N. Elm Road
Jackson, Michigan 49201
Phone: (517) 403-1858
Fax: (517) 780-5454
E-mail: pittmanj@michigan.gov

CONSTRUCTION COST:

A. The programmed funding for construction is: $15,578,594

B. The programmed funding for real estate is: $200,000

The above construction total is the amount of funding programmed for this project. The Consultant is expected to design the project within the programmed amount.

If at any time the estimated cost of construction varies by more than 5% of the current programmed amount, then the Consultant will be required to submit a letter to the MDOT Project Manager justifying the changes in the construction cost estimate.

REQUIRED MDOT GUIDELINES AND STANDARDS:

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Published MDOT Design Advisories, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, etc.).

The Consultant is required to use the MDOT Current Version of Bentley MicroStation/GEOPAK or PowerGEOPAK (published at Section 2.2.2 of the Design Submittal Requirements) with the current MDOT workspace (published at Section 2.2.1 of the Design Submittal Requirements). 3D Models are required for all applicable projects. See Chapter 2 of the Design Submittal Requirements for a complete listing of applicable projects. The consultant shall comply with all MDOT CADD standards and file naming conventions.

MDOT RESPONSIBILITIES:

A. Schedule and/or conduct the following:
   1. Project related meetings
   2. Base Plan Review
   3. The Plan Review
   4. Final Project Coordination Review
   5. OEC Certification
   6. Utility Coordination Meeting(s)
   7. Final AP Preconstruction item cost estimates

B. Furnish pertinent reference materials.

C. Furnish an example of a similar project and old plans of the area, if available.

D. Obtain all permits for the project as outlined in previous section.

E. Furnish Crash Analysis and Safety Review.

F. Coordinate any necessary utility relocation(s).

G. Furnish access to ProjectWise system.

CONSULTANT RESPONSIBILITIES:

Complete the design of this project including, but not limited to the following:

The Consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job and perform field operations in accordance with the Department's Personal Protective Equipment (PPE) policy as stated in the MDOT Guidance Document #10118.

Meet with the MDOT Project Manager to review project, location of data sources and contact persons, and review relevant MDOT operations. The Consultant shall review and clarify project issues, data needs and availability, and the sequence of events and team meetings that are essential to complete the design by the project plan completion date. Attention shall be given to critical target dates that may require a large lead time, such as geotechnical requirements, Railroad coordination requirements, utility conflict resolution, local agency meetings, etc.

A. Perform design survey based on the requirements set forth in Attachment A.

B. Prepare required plans, typical cross-sections, details, and specifications required for design and construction.

C. Compute and verify all plan quantities.

D. Prepare staging plans and special provisions for maintaining traffic during construction.

E. The Consultant may be required to provide Design Services during the construction phase of this project. If Construction Assistance is required, then a separate authorization for those services will be issued.

F. If excavation is required, submit the excavation locations which may contain contamination. Project Manager then can proceed in requesting a Project Area Contamination Survey (PACS).

G. The Consultant shall prepare and submit in ProjectWise (in PDF format) a CPM network for the construction of this project.

H. The Consultant representative shall record the minutes and submit in ProjectWise (in PDF format), for all project related meetings to the MDOT Project Manager within two weeks of the meeting. The Consultant shall also distribute the minutes to all meeting attendees. MDOT will provide and distribute official meeting minutes for The Plan Review Meeting.

I. The Consultant will provide to MDOT, by entering into MDOT ProjectWise at the scheduled submittal dates, electronic documents (in PDF format) of the required specifications and plan set materials for distribution by MDOT for all reviews for this project.

J. Prepare and submit electronically (native format or PDF) into MDOT ProjectWise, any information, calculations, hydraulic studies, or drawings required by MDOT for acquiring any permit (i.e.. NPDES, DEQ, etc.), approvals (i.e. county drain commission) and related mitigation. MDOT will submit permit requests.

K. Attend any project-related meetings as directed by the MDOT Project Manager.

L. Attend information meetings (i.e., public hearings, open houses, etc.) with the public and public officials to assist in responding to concerns and questions. May require the preparation of displays such as maps, marked-up plans, etc.

M. The MDOT Project Manager shall be the official MDOT contact person for the Consultant **and shall be made aware of all communications regarding this project**. The Consultant must either address or send a copy of all correspondence to the MDOT Project Manager. This includes all Subcontractor correspondence and verbal contact records.

N. The Consultant shall contact the MDOT Project Manager whenever discoveries or design alternatives have the potential to require changes in the scope, limits, quantities, costs, or right-of-way of the project.

O. The Consultant shall be responsible for obtaining and showing on the plans the location and names of all existing utilities within the limits of the project. In the course of resolving utility conflicts, the Consultant shall make modifications to the plans or design details and provide assistance as directed by the MDOT Utility Coordinator and/or Project Manager. The Consultant shall attend any utility meetings called to ensure that the concerns are addressed on the plans involving utilities. The Consultant shall assist in the review of utility permit requests to ensure compatibility with the project.

P. The Consultant shall be responsible for all traffic control required to perform the tasks as outlined in this Scope of Design Services.

Q. The Consultant shall be responsible for obtaining up to date access permits and pertinent information for tasks in MDOT Right of Way (ROW). This information can be obtained through Utilities/Permits in the Development Services Division

R. On the first Monday of each month, the Consultant Project Manager shall submit via email a monthly project progress report to the Project Manager.

DELIVERABLES:

The Consultant shall enter in MDOT ProjectWise, in the appropriate folders all electronic files associated with the project in their native format (spreadsheets, CADD files, GEOPAK files, Roadway Templates etc.) as directed by the MDOT Project Manager or as part of each milestone submittal at a minimum. All CADD/GEOPAK files shall be created and identified with standard MDOT file names. It is the Consultant's responsibility to obtain up to date MicroStation and GEOPAK seed/configuration files necessary to comply with MDOT's CADD standards which are published monthly to the MDOT website. Any CADD/GEOPAK files that do not conform to MDOT standards will be returned to the Consultant for correction at the Consultant's expense.

Proposal documents shall be submitted, to MDOT ProjectWise, in the appropriate folders, in their native format with standard naming conventions as well as combined into one PDF file in the sequence specified by MDOT. To provide text search capabilities the combined proposal shall be created by converting native electronic files to PDF. Scanning to PDF is discouraged except in instances where it is necessary to capture a legally signed document or a hard copy version of a document is all that exists.

Plan sheets shall be submitted to MDOT ProjectWise in the appropriate folders in a set in PDF 11" x 17" format. For final Plan Turn-In, a title sheet shall be printed, signed, sealed, and then scanned for inclusion with the PDF set. The original title sheet shall be sent to the MDOT Project Manager

Reference Information Documents (RID) shall be entered into MDOT ProjectWise in the appropriate folder with standard naming conventions and content at milestone submittals as defined by Chapter 4 of the Design Submittal Requirements. The RID files included will depend on the design survey deliverables and project template (See Chapter 2 of the Design Submittal Requirements). These files could include but are not limited to: CADD, existing terrain, proposed cross sections, 3D models and files generated for Automated Machine Guidance (AMG) and automated inspection/stakeout activities.

Stand Alone Proposal Estimator's Worksheet (SAPW) or the Project Quantity Spreadsheet (PQS) shall be used to generate the xml files necessary for import into the AP Preconstruction bid letting software. The .xml files shall be entered into MDOT ProjectWise in the appropriate folder.

The project removal, construction, and profile sheets will require a scale of **1"=80' or as approved by the Project Manager.** See Section 1.02.12 of the Road Design Manual for further direction.

All plans, special provisions, estimates, and other project related items shall meet all MDOT requirements and detailing practices (i.e., format, materials, symbols, patterns, and layout) or as otherwise directed by the Project Manager. All plans, specifications, and other project related items are subject to review and approval by MDOT.

PROJECT SCHEDULE:

The Consultant shall use the following events to prepare the proposed implementation schedule as required in the Guidelines for the Preparation of Responses on Assigned Design Services Contracts. These dates shall be used in preparing the Consultant's Monthly Progress Reports.

MDOT
Preconstruction Tasks
Consultant Checklist
Planisware Form Only

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

Version 15
Updated
09-11-2017

For questions on specific tasks, refer to the Preconstruction Task Manual located on the MDOT Website.
For assistance in accessing this manual, please contact:
Dennis Kelley: (517) 373-4614

YES	NO	PRECONSTRUCTION TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)
		DESIGN SCOPE VERIFICATION AND BASE PLAN PREPARATION		
☒	☐	3130	Verify Design Scope of Work and Cost	June 2019
☐	☒	3310	Prepare Aerial Topographic Mapping	/ /
☐	☒	3320	Conduct Photogrammetric Control Survey	/ /
☐	☒	3321	Set Aerial Photo Targets	/ /
☐	☒	3325	Geotechnical Structure Site Characterization	/ /
☒	☐	3330	Conduct Design Survey	/ /
☐	☒	3340	Conduct Structure Survey	/ /
☐	☒	3350	Conduct Hydraulics Survey	/ /
☒	☐	3360	Prepare Base Plans	02/21/2020
☒	☐	*311M*	*Utility Notification*	/ /
☐	☒	3365	Pre-Conceptual ITS Design and Meeting	/ /
☐	☒	3370	Prepare Structure Study	/ /
☐	☒	3375	Conduct Value Engineering Study	/ /
☒	☐	3380	Review Base Plans	/ /
☐	☒	3385	Preliminary Load Rating	/ /
☒	☐	*332M*	*Base Plan Review (Pre-GI Inspection)*	03/16/2020
☒	☐	3390	Develop the Maintaining Traffic Concepts	/ /

		PRELIMINARY PLANS PREPARATION		
☒	☐	3500	Develop Transportation Management Plan	/ /
☒	☐	3510	Perform Roadway Geotechnical Investigation	/ /
☐	☒	3520	Conduct Hydraulic/Hydrologic and Scour Analysis	/ /
☒	☐	3522	Conduct Drainage Study, Storm Sewer Design, and use Structural Best Management Practices	/ /
☐	☒	3530	Geotechnical Foundation Engineering Report	/ /
☐	☒	3535	Conduct Str. Review for Arch. & Aesthetic Improvements	/ /
☒	☐	3540	Develop the Maintaining Traffic Plan	/ /
☒	☐	3551	Prepare/Review Preliminary Traffic Signal Design Plan	/ /
☒	☐	3552	Develop Preliminary Pavement Marking Plan	/ /
☒	☐	3553	Develop Preliminary Non-Freeway Signing Plan	/ /
☐	☒	3554	Develop Preliminary Freeway Signing Plan	/ /
☐	☒	3555	Prepare/Review Preliminary Traffic Signal Operations	/ /
☐	☒	3570	Prepare Preliminary Structure Plans	/ /
☒	☐	3580	Develop Preliminary Plans	08/08/2020
☐	☒	3585	Final ITS Concept Design and Meeting	/ /
☒	☐	3590	Review The Plans	09/18/2020
☒	☐	*352M*	*THE Plan Review Meeting*	/ /
☐	☒	3595	Conduct ITS Structure Foundation Investigation	/ /
		UTILITIES		
☒	☐	3610	Compile Utility Information	/ /
☐	☒	3615	Compile ITS Utility Information	/ /
☐	☒	3650	Coordinate RR Involvement for Grade Separations	/ /
☐	☒	3655	Coordinate RR Involvement for At-Grade Crossings	/ /
☒	☐	3660	Resolve Utility Issues	/ /
☒	☐	*360M*	*Utility Conflict Resolution Plan Distribution*	/ /
☒	☐	*361M*	*Utility Meeting*	/ /
☐	☒	3670	Develop Municipal Utility Plans	/ /
☐	☒	3672	Develop Special Drainage Structures Plans	/ /
☐	☒	3675	Develop Electrical Plans	/ /
☐	☒	3680	Preliminary ITS Communication Analysis	/ /
☐	☒	3690	Power Design (Power Drop in Field)	/ /
		MITIGATION/PERMITS		
☐	☒	3710	Develop Required Mitigation	/ /
☒	☐	3720	Assemble Environmental Permit Applications	/ /
☒	☐	3730	Obtain Environmental Permit	/ /
		FINAL PLAN PREPARATION		
☐	☒	3815	Geotechnical Structure Design Review	/ /
☒	☐	3821	Prepare/Review Final Traffic Signal Design Plan	/ /
☒	☐	3822	Complete Permanent Pavement Marking Plan	/ /
☒	☐	3823	Complete Non-Freeway Signing Plan	/ /
☐	☒	3824	Complete Freeway Signing Plan	/ /
☐	☒	3825	Prepare/Review Final Traffic Signal Operations	/ /
☒	☐	3830	Complete the Maintaining Traffic Plan	/ /
☒	☐	3840	Develop Final Plans and Specifications	04/23/2021

☒	☐	*380M*	*Plan Completion*	06/30/2021
☐	☒	3850	Develop Structure Final Plans and Specifications	/ /
☒	☐	3870	Final Project Coordination	04/23/2021
☐	☒	3875	Final Load Rating	/ /
☒	☐	*388M*	*Final Project Coordination Review Meeting*	05/21/2021
☒	☐	*389M*	*Plan Turn-In*	/ /
☒	☐	3900	OEC Review	07/17/2021
☐	☒	391M	Certification Acceptance	/ /
		EARLY RIGHT OF WAY WORK		
☐	☒	4100	Real Estate Pre-Technical Work (combines 411M, 4120)	/ /
☐	☒	4150	Real Estate Technical Work (combines 4130, 4140)	/ /
☐	☒	*413M*	*Approved Marked Final ROW*	/ /
		ROW APPRAISAL		
☐	☒	4350	Real Estate Appraisals (combines 4411, 4412, 4413, 4420)	/ /
		ROW ACQUISITION		
☐	☒	4450	Real Estate Acquisitions (combines 4430, 4710, 4720)	/ /
☐	☒	4510	Conduct Right Of Way Survey & Staking	/ /
☐	☒	*442M*	*ROW Certification*	/ /

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee. The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418. MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848. MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.

ATTACHMENT A

SCOPE OF SERVICE
FOR
DESIGN SURVEYS
Version: June 2016

TYPE OF SURVEY:

x	Surveying: Road Design (3330)
	Surveying: Structure (3340)
	Surveying: Hydraulics (3350)
x	Surveying: Right of Way (4510)

(Work in any of the above Survey Services Categories must be completed by a survey firm which is pre-qualified by MDOT for that category.)

GENERAL REQUIREMENTS:

1. Surveys must comply with **all Michigan law** relative to land surveying.
2. Surveys must be done under the **direct supervision** of a Professional Surveyor licensed to practice in the State of Michigan.
3. The selected Survey Consultant must discuss the scope of this survey with MDOT Survey Consultant Project Manager Brad Fish (517-335-1916, FishB4@michigan.gov) before submitting a priced proposal.
4. The selected Survey Consultant must contact the Region or TSC Traffic and Safety Engineer for work restrictions and traffic control requirements. Costs for traffic control must be included in the priced proposal in order to be reimbursed as a direct cost.
5. A **detailed Survey Work Plan must** be included with the Priced Proposal. A **spreadsheet estimate** of hours by specific survey task such as horizontal control, leveling, mapping, alignment determination, etc., **must** be included in the **Priced Proposal**.
6. It is the responsibility of the Survey Consultant to safeguard all corners of the United States Public Land Survey System, published Geodetic Control and any other Property Controlling corners that may be in danger of being destroyed by the proposed construction project.
7. Surveys must meet all requirements of the *MDOT Design Surveys Standards of Practice* (link: http://mdotwiki.state.mi.us/design/index.php/Chapter_1_-_Survey_Manual_Introduction). Please contact the MDOT Design Survey Support Unit to clarify any specific questions regarding these standards.

8. Survey Consultants must obtain all necessary permits required to perform this survey on any public and/or private property, including an up-to-date permit from the MDOT Utilities Coordination and Permits Section.
9. Prior to performing the survey, the Survey Consultant must contact all landowners upon whose lands they will enter in accordance with the *MDOT Design Surveys Standards of Practice*. A template letter can be found here: http://mdotwiki.state.mi.us/design/index.php/File:EXAMPLE_Right_of_Entry.pdf
10. The Survey Consultant must contact any and all Railroads prior to commencing field survey on railroad property. The cost for any permit, flaggers and/or training that is required by the Railroad will be considered as a direct cost, but only if included in the Survey Consultant's priced proposal.
11. The Survey Consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job.
12. The MDOT Project Manager is the official contact for the Survey Consultant. The Survey Consultant must send a copy of all project correspondence to the MDOT Project Manager. The MDOT Project Manager shall be made aware of all communications regarding this project. Any survey related questions regarding this project should be directed to an MDOT Survey Consultant Project Manager or MDOT Region Surveyor. **The MDOT Project Manager must be copied on any and all correspondence.**

SURVEY PROJECT LIMITS:

The mapping limits, for this approximately 12-mile project, are as follows: US-127 mapping will include the intersection of US-12 and extend south, along US-127, to its intersection with US-223. Mapping along US-223 will include the intersection with US-127 and extend southeasterly, along US-223, to Stoddard Road. All mapping will include full Right of Way plus 20 feet beyond each side. Mapping will also extend 100 feet along side streets and include full Right of Way plus 20 feet on each side.

RESEARCH:

Survey Consultants are responsible for a comprehensive and conscientious research of all records, including MDOT records, essential for the completion of this project. The MDOT Design Survey Support Unit is available to assist in researching MDOT records.

CONTROL: Horizontal and Vertical control have not been established in the immediate project area. All control will be established following the guidelines established in the *MDOT Standards of Practice*. A Least-Squares Adjustment must be performed for all new control points and benchmarks.

- Horizontal control points meeting MDOT's "Intermediate" classification will be utilized for this project. Inter-visible Intermediate Control Points will be spaced throughout the project at a distance not exceeding 600 feet. Accepted RTK GPS methods can be used to establish the horizontal coordinates or this project.
- Vertical Benchmarks will also be spaced throughout the project at a distance not exceeding 600 feet. To establish the vertical datum, a level run must be run through all the control points and benchmarks set for the project. The level run must start on one NGS Benchmark and end on another NGS Benchmark.

ALIGNMENT & ROW:

Determine the Legal alignment for US-127 & US-223. Any alignment points that fall in the paved surface of the roadway must be noted on the survey info sheet. Add a note to all alignment points, set or not, that will need to be preserved during construction.

Determine Legal ROW for the project. Also, note on the survey info sheet which section corners may potentially be disturbed during construction and label as "preserve".

If determined that there will be partial takes at the US-127/US-223 intersections, the Survey Consultant must prepare a Certified Survey for each partial take, refer to *Chapter 4 Section 6: Certified Surveys for Real Estate Acquisition* for requirements.

MAPPING REQUIREMENTS:

- Final mapping scale to be 1"=80'
- Contour interval = 1 foot - 5 foot Index
- Roadway improvements, curbs, sidewalks, signs, guardrail, light poles
- Intersection signalization equipment
- Drainage appurtenances including ditches, culverts, structures
- Locate surface manifestations of all utilities and provide structure inventories
- Connectivity Mapping for Gravity Fed Systems and Visible Utility Lines
- Structure Details (CB, MH, Culverts, Type, Condition, Invert Elevations, etc. in ASCII or Spreadsheet format)
- Terrain surface mapping
- Trees and brush classification
- Use of Mobile Terrestrial LiDAR Survey(MTL)
- MISS DIG is not required to be contacted

TRAFFIC & SAFETY:

Arrange for adequate traffic control for safety. Contact Roslyn Hagood at the MDOT Jackson TSC at (517) 780-7903 to discuss issues and concerns. Traffic control costs must be included in the cost proposal, costs not included in the priced proposal will not be paid by MDOT.

The Survey Consultant must submit an advanced notice 5-21 days prior to beginning any work

activity through the MDOT Construction Permit System (CPS) (http://www.michigan.gov/mdot/0,4616,7-151-9625_72410---,00.html).

The Survey Consultant must adhere to all work restrictions and traffic control requirements detailed in the MDOT Advanced Notice Permit.

The Survey Consultant must have a vehicle with markings/logo that identifies the company within sight distance of survey activity and must have a 360 degree flashing strobe light on the top of the vehicle whenever they are working on or near the road.

Traffic control on city streets and county roads is under the jurisdiction of the local authorities where the project is located.

COORDINATION WITH OTHER CONTRACTS IN THE VICINITY:

The Survey Consultant shall coordinate operations with contractors performing work on other projects within or adjacent to the Construction Influence Area (CIA).

MDOT maintenance crews and/or Contract Maintenance Agencies may perform maintenance work within or adjacent to the CIA. The Maintenance Division of MDOT and/or Contract Maintenance Agency will coordinate their operations with the MDOT Project Manager or Designate to minimize the interference to the Survey Consultant.

The Survey Consultant must contact the Operations Engineer at the local MDOT TSC for information regarding project coordination.

Other contracts or maintenance operations may occur during the life of the project. Contractors and other consultants involved with construction projects have similar requirements of cooperation and coordination of work as part of their projects as referenced in Article 104.08 of the *2012 Standard Specifications for Construction* (http://mdotcf.state.mi.us/public/specbook/2012/). Survey Consultants shall conduct their work with similar coordination efforts. The Survey Consultant will not be allowed claims for extra compensation or extensions of deadlines due to delays or failures of others to complete scheduled work.

POST SURVEY CLEAN-UP:

Once the survey is complete, all stakes must be removed from the MDOT median and ROW to aid the maintenance crews and adjacent property owners. All benchmarks and control points and their witnesses must remain in place.

DELIVERABLES:

The **MDOT Survey QA/QC Checklist** details the files that are to be submitted to MDOT (link: http://mdotwiki.state.mi.us/design/index.php/File:MDOT_Survey_Project_Checklist_2016.xlsm) . This document shall be signed and certified by the Professional Surveyor responsible for the project QA/QC. **Failure to use and include this document may result in the immediate return of the project portfolio for completion.**

Files submitted to MDOT may vary by project type and scope, the following files **must always** be submitted to MDOT unless explicitly omitted in writing by the following MDOT personnel: MDOT Region Surveyor, MDOT Survey Consultant Manager or MDOT Supervising Land Surveyor:

- Survey Portfolio PDF (XXXXXX_Survey_20YY-MM-DD.pdf)
- Alignment and ROW Portfolio PDF (XXXXXX_Align_ROW_Portfolio_20YY-MM-DD.pdf)
- Survey Information Sheet (S-XXXXXX_Survey_Info_Sheet_20YY-MM-DD.doc)
- Alignment and ROW CAD file (S-XXXXXX_Align_ROW_20YY-MM-DD.dgn)
- 3D project map (S-XXXXXX_Survey_3D_20YY-MM-DD.dgn)
- When Mobile Terrestrial LiDAR (MTL) or Static Terrestrial Laser Scanning (STLS) techniques are used, three (3) copies of the entire point cloud must be delivered to the MDOT Survey Support Unit on media with appropriate storage capacity to contain all the data on one device.
- When Photogrammetric Mapping techniques are used, three (3) copies of the raw digital imagery, ortho-imagery and photogrammetrically extracted points cloud data must be delivered to the MDOT Survey Support Unit on media with appropriate storage capacity to contain all the data on one device.

All submitted files must be scanned and/or converted to one PDF format file. A Table of Contents in PDF format is required that has all PDF files bookmarked/linked so each place in the PDF archive can be accessed with a single click. Items required to be included in the Survey Portfolio PDF can be found in the QA/QC Checklist. Specified format files such as Microsoft Word and MicroStation GEOPAK must have separate access in native format outside of the PDF file.

At the completion of this survey for this project, legible copies of all field survey notes, all electronic data, and all research records obtained for this project will be considered the property of MDOT. Please include MDOT's Form 222(5/01) entitled "SURVEY NOTES: RECEIPT AND TRANSMITTAL" for all transmittals. A copy of this transmittal form must be sent to the MDOT Project Manager for Design and the MDOT Supervising Land Surveyor.

Electronic submittal only. Survey deliverables must be submitted using ProjectWise. For file naming conventions and upload locations, refer to Chapter 10 of the *MDOT Design Surveys Standards of Practice*.

Acceptance of this survey by the MDOT Project Manager and/or the MDOT Supervising Land Surveyor does not relieve the Survey Consultant of any liability for the content of the survey.